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(11) EP 1 219 278 A2

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:  
03.07.2002 Bulletin 2002/27

(51) Int Cl<sup>7</sup>: A61H 9/00, A61H 23/02

(21) Application number: 01500100.1

(22) Date of filing: 11.04.2001

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE TR  
Designated Extension States:  
AL LT LV MK RO SI

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(30) Priority: 17.04.2000 ES 200000998

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(54) Ultrasonic massage device

(57) "ULTRASOUND ENDOMASSAGE DEVICE",  
of the type used in massage, slimming and anti-cellulite  
treatments, made up of a casing which houses an ultra-  
sound generator and a vacuum pump controlled by a  
processor which allows different treatment programmes  
to be selected, characterised essentially because the ul-  
trasound generator and the vacuum pump are connect-  
ed to an application terminal which is applied to the ep-

idermis of patients, this terminal being made up of a sup-  
port handle which has an airtight bayonet joint or similar  
type of juncture to which one of three or more inter-  
changeable application heads can be attached, which  
may be specifically for ultrasound, suction or treatments  
combining ultrasound, suction and other appropriate  
treatments.

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## Description

[0001] The objective of this invention, as expressed in the statement to this descriptive report, consists of an "ULTRASONIC ENDOMASSAGE DEVICE", of the type used in massage treatments.

[0002] At present, the type of devices that exist in the market facilitate slimming and skin regeneration treatments based on suction systems.

[0003] These devices have terminals which are applied directly onto the epidermis, moving the contact element by means of rollers which in turn use a vacuum system to carry out a small pinching of the skin.

[0004] This treatment, in contrast to traditional massage, mobilises the liquids and tissues by means of a deep massage which helps to breakdown the small adipose chains, while managing to regenerate the skin.

[0005] Similarly, another treatment that has proven its effectiveness consists of the application of ultrasound energy which helps to improve the blood circulation.

[0006] One of the problems of the devices which are currently available is that both suction and ultrasound treatments cannot be performed in unison, instead each treatment has to be applied alternately, with the loss of time and effectiveness that this involves.

[0007] A joint treatment produces a synergy which increases the advantages of the suction system.

[0008] In addition, in ultrasound treatments the terminal must be applied very carefully because when it is turned on and not applied to the skin, it heats up, and upon subsequent use on the patient, may cause burns or the device may be damaged from overheating.

[0009] Therefore a new ultrasound endomassage device has been developed which allows the suction and ultrasound treatments to be carried out simultaneously.

[0010] Basically, the new device is made up of a casing which houses an ultrasound generator and a vacuum pump, both of which are connected to a terminal which is applied to the epidermis of the patient.

[0011] The application terminal comprises a support handle which has an airtight bayonet joint or similar type of juncture to which one of the three or more interchangeable application heads can be attached.

[0012] One head specifically for ultrasound, another for suction and a third for treatments combining both ultrasound and suction.

[0013] The support handle has an opening for manually controlling the suction pressure on the skin of the patient.

[0014] The ultrasound generator is connected to a bracelet or connection which includes a contact serving as an earth connection.

[0015] This bracelet is attached to the wrist or another part of the patient's body whenever the contact is touching the patient's skin.

[0016] When the device is switched on, the ultrasound generator is activated whenever the ultrasound terminal of the applicator is in contact with the patient's skin at

which moment the electric circuit of the ultrasound generator is closed; it is deactivated when there is no contact.

[0017] Finally, the casing which houses the generator and vacuum pump has a control panel where the vibration intensity, time, power and vacuum control can be regulated manually or a pre-established programme selected, and where the on/off switch of the device is located.

[0018] Both the generator and suction mechanisms are controlled by a processor which allows different treatment programmes, combined or not, to be selected.

[0019] This new ultrasound endomassage treatment device improves vascular flow, oxygenates in depth, drains liquids, clears tissue congestion and reaffirms, providing a perfect reshaping of the body and reducing volume and cellulite.

[0020] It is the only apparatus for endomology in the market which uses ultrasonic wave transmission at the same time as suction.

[0021] This is translated into a reduction in treatment times and better results.

[0022] In addition, the terminal head can be changed in order to apply only suction or only ultrasound treatments.

#### DESCRIPTION OF THE DIAGRAMS

[0023] To illustrate everything explained so far, a page of drawings is attached to this descriptive report, forming an integral part of it, representing the invention in a simplified and schematic way. The drawings are intended to be purely illustrative and are not an exhaustive representation of the practical possibilities of the invention.

[0024] In these diagrams, figure 1 represents an aerial view, floor view and profile of the terminal of the ultrasonic endomassage device, without the interchangeable head.

[0025] Figure 2 represents a cross-sectional view of the three interchangeable heads of the innovative device.

[0026] Figure 3 is a diagram of the different parts of the innovative device.

#### DESCRIPTION OF A PRACTICAL EXAMPLE

[0027] The innovative device is made up of a casing (1) which houses an ultrasound generator (2) and a vacuum pump (3), both of which are connected to a terminal (4) which is applied to the epidermis of the patient.

[0028] The application terminal (4) is made up of a support handle (5) which has an airtight bayonet joint or similar type of juncture to which one of the interchangeable application heads can be attached.

[0029] One head specifically for ultrasound (6), another for suction (7) and a third for combined ultrasound and suction treatments (8).

[0030] The support handle (5) has an opening (9) for

the manual control of the suction pressure on the skin of the patient.

[0031] The ultrasound generator is connected to a bracelet (10) which includes a contact (13) serving as an earth connection.

[0032] Both the ultrasound (2) and suction (3) mechanisms are controlled by a processor (11) which allows different treatment programmes, combined or not, to be selected.

[0033] Finally, the casing which houses the generator and vacuum pump has a control panel (12) where the vibration intensity, time, power and vacuum control can be regulated manually or a pre-established programme selected, and where the on/off switch of the device is located.

[0034] Having explained the concept behind the invention, the note of claims is drafted next, thus establishing the inventions which are the subject of the claim.

#### Claims

1. "ULTRASOUND ENDOMASSAGE DEVICE", of the type used in massage, slimming and anti-cellulite treatments, made up of a casing which houses an ultrasound generator and a vacuum pump controlled by a processor which allows different treatment programmes to be selected, characterised essentially because the ultrasound generator and the vacuum pump are connected to an application terminal which is applied to the epidermis of patients, this terminal being made up of a support handle which has an airtight bayonet joint or similar type of juncture to which one of three or more interchangeable application heads can be attached, which may be specifically for ultrasound, suction or treatments combining ultrasound, suction and other appropriate treatments.
2. "ULTRASOUND ENDOMASSAGE DEVICE", as described in the claim above, characterised because the ultrasound generator is connected to a bracelet with a contact, which is attached to the arm or any appropriate part of the patient serving as an earth connection which activates the generator when the terminal is in contact with the skin of the patient and is disconnected automatically when it loses contact with the skin.

Fig.1

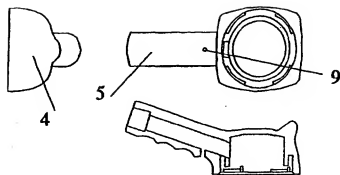


Fig.2

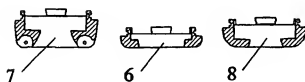


Fig.3

